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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,678	01/20/2004	Andrew J. Ouderkirk	58388US004	5265

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EXAMINER	
LOUIE, WAI SING	

ART UNIT	PAPER NUMBER
2814	

NOTIFICATION DATE	DELIVERY MODE
09/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
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Office Action Summary	Application No.	Applicant(s)	
	10/762,678	OUDERKIRK ET AL.	
	Examiner	Art Unit	
	Wai-Sing Louie	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6, 10, and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 7,091,653. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

With regard to claims 1-4 and 6, US 7,091,653 disclose a light source, comprising:

- An LED capable of emitting light (claim 1);
- A layer of phosphor material positioned to receive excitation light and emitting visible light when illuminated with the excitation light (claim 1);
- Interference reflector (non-planar flexible multilayer reflector) means for reflecting at least some light emitted by the LED that has not passed through the

layer of phosphor material, onto the layer of phosphor material and transmitting at least some visible light emitted by the phosphor (claim 1).

With regard to claim 10, US 7,091,653 discloses the limitations in claim 6.

With regard to claim 20, US 7,091,653 discloses the limitations in claim 3.

Claims 5, 7-9, and 11-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 7,091,653 in view of Lin et al. (US 6,864,554).

With regard to claim 5, US 7,091,653 does not disclose the reflector has a planar shape. However, Lin et al. disclose a reflector 232 has a planar shape (Lin fig. 4). Lin et al. teach the planar reflector is positioned to reflect light emitted by LED 21 towards the phosphor layer 233 thereby changing the color of light (Lin col. 8, lines 10-20). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device of US 7,091,653 with the teaching of Lin et al. to provide a planar reflector in order to reflect light emitted by LED 21 towards the phosphor layer 233 thereby changing the color of light.

With regard to claim 7, US 7,091,653 modified by Lin et al. disclose the reflector 232 has a non-planar shape is substantially an ellipsoid, where the LED 21 and the layer of phosphor material 233 are disposed at foci of the ellipsoid (Lin fig. 6).

With regard to claim 8, US 7,091,653 modified by Lin et al. disclose a first portion of the light emitted by the LED 21 is reflected by the reflector 232 onto a major surface of the layer of phosphor 233, and a second portion of the light emitted by the LED 21 impinges by reflector 46

on a second major surface of the layer of phosphor 233 opposed to the first major surface (Lin fig. 5).

With regard to claim 9, US 7,091,653 modified by Lin et al. disclose the reflector 232 has a shape of a surface of revolution (Lin fig. 3 and 5).

With regard to claim 11, US 7,091,653 modified by Lin et al. disclose the layer of phosphor material 233 is segmented into distinct color region (Lin col. 8, lines 10-21).

With regard to claim 12, US 7,091,653 modified by Lin et al. disclose the layer of phosphor material 233 is co-planar with the LED 21 (Lin fig. 9).

With regard to claim 13, US 7,091,653 modified by Lin et al. disclose the layer of phosphor material 233 is not co-planar with the LED 21 (Lin fig. 5).

With regard to claims 14-15, US 7,091,653 modified by Lin et al. do not disclose the layer of phosphor material 233 is a discontinuous layer of phosphor material and have a plurality of lines of phosphor material. However, weather the layer of phosphor material 233 is one solid piece or discontinuous pieces is considered as a change in shape of a device. A change in shape is generally recognized as being within the level of ordinary skill in the art. MPEP 2144.04.

Claims 16-19 and 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 7,091,653 in view of Lin et al. (US 6,864,554) and Johnson (US 6,414,442).

With regard to claim 16, US 7,091,653 modified by Lin et al. do not disclose the phosphorus material comprises a plurality of dots of phosphor material. However, Johnson et al. discloses a layer of phosphor 102, where the phosphor material is arranged in a plurality of dots

(Johnson col. 3, lines 48-51). Johnson et al. teach using the phosphor dots is less sensitive to misalignment and yield a more durable image device without high cost (Johnson col. 1, lines 51-60). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device of US 7,091,653 with the teaching of Lin et al. and Johnson et al. to use the phosphor dots instead of a layer of phosphor material in order to have less misalignment and yield a more durable image device.

With regard to claim 17, US 7,091,653 modified by Lin et al. and Johnson et al. do not disclose the dots have an area of less than 10000 μm^2. However, it would have been obvious to one of ordinary skill in the art to use any suitable sizes for the phosphor dots, because it has been held that where the general conditions of the claims are disclosed in the prior art, it is not inventive to discover the optimum or workable range by routine experimentation. See In re Alner, 220 F .2d 454, 105 USPQ 233, 235 (CCPA 1955).

With regard to claims 18-19, US 7,091,653 modified by Lin et al. and Johnson et al. disclose the plurality of dots of phosphor material that emits more than one color (blue, red, and green) when illuminated with the excitation light (Johnson col. 2, line 54).

With regard to claim 21, US 7,091,653 modified by Lin et al. and Johnson et al. disclose a three (blue, red, and green) color phosphor dots. The blue dots emit a first wavelength and the green dots emit a second wavelength different than the first wavelength (Johnson col. 2, lines 51-64).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Ouderkirk et al. (US 7,091,653).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is 571-272-1709. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wai-Sing Louie/
Primary Examiner, Art Unit 2814

Wsl
August 28, 2008.